

IN THE CLAIMS:

All claim amendments and cancellations are made without prejudice or disclaimer. Claims 16, 17, 72 and 73 are allowed. Claims 3, 6, 8, 10, 13, 14, 16, 17, 60, 62, 66, 69, and 70 are hereby canceled. Please amend the claims as follows:

1-15. (Cancelled)

16. (Previously presented) A method for generating an adenoviral vector comprising welding together two nucleic acid molecules wherein said two nucleic acid molecules comprise partially overlapping sequences capable of combining with one another allowing the generation of a physically linked nucleic acid comprising at least two functional adenovirus inverted terminal repeats, a functional encapsulation signal and a nucleic acid sequence of interest or functional parts thereof; at least one of said molecules comprising an adenoviral capsid protein encoding nucleic acid derived from two different adenovirus serotypes.

17. (Previously presented) A method for generating an adenoviral vector comprising welding together two nucleic acid molecules wherein said two nucleic acid molecules comprise partially overlapping sequences capable of combining with one another allowing the generation of a physically linked nucleic acid comprising at least two functional adenovirus inverted terminal repeats, a functional encapsulation signal and a nucleic acid encoding at least one adenoviral E1-region protein, at least one adenoviral E2-region encoded protein and/or at least one adenoviral E4-region encoded protein and a nucleic acid sequence of interest or functional parts thereof and wherein at least one of said E1-region encoded proteins is under transcriptional control of a conditionally active promoter.

18-71. (Cancelled)

72. (Previously presented) A method for generating an adenoviral vector comprising welding together, through homologous recombination, two nucleic acid molecules comprising partially overlapping sequences wherein said overlapping sequences of each nucleic acid molecule of said two nucleic acid molecules comprise essentially only one continuous sequence such that homologous recombination may occur, leading to the generation of a physically linked nucleic acid comprising at least two functional adenovirus inverted terminal repeats, a functional encapsulation signal and a nucleic acid sequence of interest or functional parts thereof; at least one nucleic acid molecule of said two nucleic acid molecules comprising an adenoviral capsid protein encoding nucleic acid derived from two different adenovirus serotypes.

73. (Previously presented) A method for generating an adenoviral vector comprising welding together through homologous recombination, two nucleic acid molecules comprising partially overlapping sequences wherein said overlapping sequences of each nucleic acid molecule of said two nucleic acid molecules comprise essentially only one continuous sequence whereby homologous recombination may occur, leading to the generation of a physically linked nucleic acid comprising at least two functional adenovirus inverted terminal repeats, a functional encapsulation signal, a nucleic acid encoding at least one adenoviral E1-region protein, at least one adenoviral E2-region encoded protein and/or at least one adenoviral E4-region encoded protein and a nucleic acid sequence of interest or functional parts thereof and wherein at least one of said E1-region encoded proteins is under transcriptional control of a conditionally active promoter.

74. (New) The method according to claim 16, wherein said welding together is performed in a cell.

75. (New) The method according to claim 74, wherein said cell is a mammalian cell.

76. (New) The method according to claim 75, wherein said mammalian cell is a cell as deposited at the ECACC under number 96022940.

77. (New) The method according to claim 74, wherein the physically linked nucleic acid has no overlap with a cellular nucleic acid, thereby reducing formation of replication competent adenovirus.

78. (New) The method according to claim 16, wherein at least one of said two nucleic acid molecules is derived from an adenoviral vector library, said adenoviral vector library comprising a multitude of nucleic acid molecules including different nucleic acids of interest.

79. (New) A method of generating an adenoviral vector from a first adenoviral serotype having at least two functional adenovirus inverted terminal repeats, a functional encapsulation signal, a nucleic acid sequence of interest, and a nucleic acid sequence encoding a capsid protein, the method comprising:

welding together at least two nucleic acid molecules, wherein said at least two nucleic acid molecules comprise partially overlapping sequences capable of combining with one another, to generate an adenoviral vector, said at least two nucleic acid molecules together comprising at least two functional adenovirus inverted terminal repeats, a functional encapsulation signal, a nucleic acid sequence of interest, and a nucleic acid sequence encoding a chimeric capsid; and

wherein said chimeric capsid comprises a capsid protein or fragment thereof from an adenovirus serotype different than the remainder of said chimeric capsid, thereby forming said adenoviral vector.

80. (New) The method according to claim 79, said capsid protein is a hexon protein.

81. (New)      The method according to claim 79, wherein said capsid protein is a penton base protein.
82. (New)      The method according to claim 79, wherein said capsid protein is a fiber protein.
83. (New)      The method according to claim 79, wherein at least a part of said capsid protein is a fiber protein derived from an adenovirus subgroup B-type adenovirus.
84. (New)      The method according to claim 83, wherein said subgroup B-type adenovirus is adenovirus 16.
85. (New)      The method according to claim 79, wherein said welding together is performed through linking complementary ends resulting from restriction enzyme digestion of the at least two nucleic acid molecules.
86. (New)      The method according to claim 79, wherein said welding together is performed through homologous recombination of overlapping sequences in the at least two nucleic acid molecules.
87. (New)      The method according to claim 86, wherein said welding together is performed in a cell.
88. (New)      The method according to claim 87, wherein said cell is a mammalian cell.
89. (New)      The method according to claim 88, wherein said cell is a cell as deposited at the ECACC under number 96022940.